



Europäisches Patentamt  
European Patent Office  
Office européen des brevets



(11)

**EP 1 589 381 A3**

(12)

**EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:  
**06.09.2006 Bulletin 2006/36**

(51) Int Cl.:  
**G03G 9/10** <sup>(2006.01)</sup> **G03G 9/107** <sup>(2006.01)</sup>  
**G03G 9/113** <sup>(2006.01)</sup>

(43) Date of publication A2:  
**26.10.2005 Bulletin 2005/43**

(21) Application number: **05008568.7**

(22) Date of filing: **19.04.2005**

(84) Designated Contracting States:  
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR  
HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR**  
Designated Extension States:  
**AL BA HR LV MK YU**

(30) Priority: **20.04.2004 JP 2004123732**

(71) Applicant: **TOMOEGAWA PAPER CO. LTD.  
Tokyo (JP)**

(72) Inventors:  
• **Fujiwara, Akira,**  
**Tomoegawa Paper Co., Ltd**  
**Shizuoka-shi**  
**Shizuoka 421-0126 (JP)**  
• **Harada, Yoshiaki,**  
**Tomoegawa Paper Co., Ltd**  
**Shizuoka-shi**  
**Shizuoka 421-0126 (JP)**

(74) Representative: **Eisenführ, Speiser & Partner**  
**Patentanwälte Rechtsanwälte,**  
**Postfach 31 02 60**  
**80102 München (DE)**

(54) **Resin coated carrier for electrophotography and two-component developer for electrophotography made therefrom**

(57) A resin coated carrier for electrophotography and a two-component developer for electrophotography made therefrom, in which electrostatic charge giving ability to toner is high, anti-spent property is superior, charging property is stable even if a large number sheets are continuously printed, initial electrostatic charge increasing ability and electrostatic charge maintaining ability after leaving are also superior, and fogging at supplying toner and fogging after leaving are not generated. In a resin coated carrier for electrophotography comprising a coating material and a core material, in which the coating material covers the surface of the core material, the coating material contains a resin component and a conductive agent, the core material is ferrite, and electric resistance of the carrier at an applied voltage of 100 V set to be  $1.0 \times 10^3$  to  $1.0 \times 10^6 \Omega \cdot \text{cm}$ , or breakdown voltage is set to be 120 to 280 V.

**EP 1 589 381 A3**



European Patent  
Office

## EUROPEAN SEARCH REPORT

Application Number  
EP 05 00 8568

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	EP 1 205 814 A (DAINIPPON INK AND CHEMICALS, INC) 15 May 2002 (2002-05-15)	1-4,9,10,12	INV. G03G9/10
Y	* page 4, paragraph 23 *	5-8,11,13,14	G03G9/107 G03G9/113
	* page 5, paragraph 26 *		
	* page 5, paragraph 27 *		
	* page 10, paragraph 85 *		
	* page 4, paragraph 23 *		
	* claim 4 *		
	-----		
Y	PATENT ABSTRACTS OF JAPAN vol. 007, no. 238 (P-231), 22 October 1983 (1983-10-22) & JP 58 123552 A (HITACHI KINZOKU KK), 22 July 1983 (1983-07-22) * abstract *	5,6	
	-----		
Y	EP 1 260 874 A (RICOH COMPANY LTD) 27 November 2002 (2002-11-27) * abstract *	7,8	
	-----		
Y	EP 0 703 503 A (MITA INDUSTRIAL CO., LTD) 27 March 1996 (1996-03-27) * page 11, lines 30-34 * * abstract *	11,13,14	TECHNICAL FIELDS SEARCHED (IPC) G03G
	-----		
A	PATENT ABSTRACTS OF JAPAN vol. 017, no. 170 (P-1515), 31 March 1993 (1993-03-31) & JP 04 329553 A (MITSUBISHI KASEI CORP), 18 November 1992 (1992-11-18) * abstract *	1-14	
	-----		
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 28 July 2006	Examiner Weiss, F
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document	

8  
EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 05 00 8568

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

28-07-2006

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
EP 1205814	A	15-05-2002	US	2002081514 A1	27-06-2002
JP 58123552	A	22-07-1983	NONE		
EP 1260874	A	27-11-2002	JP	2003167389 A	13-06-2003
			US	2003186154 A1	02-10-2003
EP 0703503	A	27-03-1996	CN	1140267 A	15-01-1997
JP 04329553	A	18-11-1992	JP	3080433 B2	28-08-2000